MOODY'S INVESTORS SERVICE

CREDIT OPINION

22 November 2022

New Issue

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OP Mortgage Bank - Mortgage Covered Bonds Programme 4

New Issue Report - Finnish covered bonds

Ratings

Exhibit 1

Cover Pool (€)	Ordinary Cover Pool Assets	Covered Bonds (€)	Rating
1,659,327,726	Residential Mortgage Loans	1,250,000,000	Aaa

All data in the report is as of October 11, 2022 unless otherwise stated

Source: Moody's Investors Service

Closing Date

14th November 2022

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Contacts

Alexander Zeidler +44.20.7772.8713
VP-Sr Credit Officer
alexander.zeidler@moodys.com

Hadrien Rogier +33.1.53.30.10.20
VP-Senior Analyst
hadrien.rogier@moodys.com

Summary

The covered bonds issued by OP Mortgage Bank Plc (OPMB or the issuer, Aa2(cr)) under its €25 billion Euro Medium Term Covered Bond (Premium) Programme are full recourse to the issuer and secured by a cover pool of assets consisting of mortgage loans secured almost exclusively by owner-occupied residential properties (92.6%) and loans to housing companies (7.4%). All properties are located in Finland.

Credit strengths include the full recourse of the covered bonds to the issuer and support provided by the Finnish covered bond legislation (Act On Mortgage Banks and Covered Bonds 151/2022). The issuer is part of the OP Financial Group (the Group), the largest Finnish co-operative banking group in Finland. Under Finland's Cooperative Bank Act, all banking subsidiaries and the member cooperative banks are jointly responsible for each other's liabilities. Therefore, our analysis links to OP Corporate Bank (Aa2(cr)) for the Expected Loss and TPI analysis.

Credit challenges include the high level of dependency on the issuer. As with most covered bonds in Europe, the issuer can materially change the nature of the programme.

Our credit analysis takes into account the cover pool's credit quality, which is reflected in the collateral score of 5.0%, and the current over-collateralisation (OC) of 32.7% on a nominal value basis, based on the cover pool as of 11 October 2022 and a first issuance of €1.25 billion.

Credit strengths

» ***Recourse to the issuer***: The covered bonds are full recourse to OP Mortgage Bank Plc (Aa2(cr)). (See "Covered description")

» ***Support provided by the Finnish legal framework*:** The covered bonds are governed by the Finnish Act on Mortgage Banks and Covered Bonds 151/2022 (Laki kiinnitysluottopankeista ja katetuistajoukkolainoista), which provides for the issuer's regulation and supervision, and sets certain minimum requirements for the covered bonds and the cover pool. (See "Moody's related publications: Covered Bond Legal Frameworks")

» ***High credit quality of the cover pool*:** The covered bonds are supported by a cover pool of high-quality assets. The assets consist of mortgage loans secured almost exclusively by owner-occupied residential properties (92.6%) and loans to housing companies (7.4%). The collateral quality is reflected in the collateral score, which is currently 5.0% (3.5% collateral score excluding systemic risk). (See "Cover pool analysis")

» ***No currency risk*:** Both the assets and the liabilities are denominated in euros. (See "Covered bond analysis")

» ***No set-off risk.*** The covered bond law prohibits set-off against cover pool assets that benefit from the priority rights. This does not prevent netting under derivatives contracts. (See "Moody's related publications: Covered Bond Legal Frameworks")

» ***Provisions for a cover pool supervisor:*** At issuer insolvency, the Finnish financial services authority (FIN-FSA) would appoint a cover pool supervisor and will continue to supervise the issuer. The cover pool supervisor has a strong and clearly defined role relative to the bankruptcy administrator and a clear mandate to act in the interests of covered bondholders. (See "Moody's related publications: Covered Bond Legal Frameworks")

» ***Soft bullet bonds:*** Covered bonds benefit from a maturity extension of 12 months. (See "Covered bond analysis")

Credit challenges

» ***High level of dependency on the issuer:*** As with most covered bonds, before the insolvency of the issuer, the issuer can materially change the nature of the programme. For example, the issuer can add new assets to the cover pool, issue new covered bonds with varying promises and enter into new hedging arrangements. Also similar to most covered bonds in Europe, this programme has few restrictions on the future composition of the cover pool. These changes could affect the credit quality of the cover pool as well as the overall refinancing and market risks. This is mitigated by the legal asset eligibility criteria and by the minimum OC level of 2.0% (defined on the lower of NPV and nominal basis) required by the Finnish covered bond law. (See "Covered bond analysis")

» ***Refinancing risk*:** Following a CB anchor event, covered bondholders, to achieve timely principal payment, might need to rely on proceeds raised through the sale of, or (subject to prior consent from FIN-FSA) borrowing against, the cover pool assets. The market value of these assets may be subject to high volatility after a CB anchor event. (See "Covered bond analysis")

» ***Time subordination:*** After a CB anchor event, later-maturing covered bonds will be subjected to time subordination. Principal cash collections may be used on a first-come, first-served basis, paying earlier-maturing covered bonds before later-maturing covered bonds. This subordination could lead to the erosion of OC before any payments are made to later-paying covered bonds. (See "Covered bond analysis")

ESG considerations

In general, we consider ESG risks to be low for covered bonds. In our assessment of the programme's credit quality, we evaluate ESG risks as low. The covered bonds' dual recourse structure mitigates environmental, social and governance risks. Environmental and social risks are further mitigated by the diversified nature of the cover pool, while governance risk is largely mitigated by (i) Finnish covered bond law (ii) key programme participants' adherence to obligations; and (iii) the operational and substantive provisions of the programme documents. Please refer to General Principles for Assessing Environmental, Social and Governance Risks Methodology, 19 October 2021, which explains our general principles for assessing ESG Risks in our credit analysis globally.

» ***Environmental:*** Overall exposure to meaningful environmental risks is low in this programme as covered bondholders benefit from the issuer's liability to make payment on the covered bonds and the cover pool's geographical diversification. (See Cover pool analysis - Environmental considerations)

» ***Social:*** Overall exposure to meaningful social risks is moderate in this programme, mainly because social issues that affect lenders can also affect the cover pool. Social risks are mitigated by the covered bonds' dual recourse to both issuer and cover pool as well as the cover pool's diversification. (See Summary – Credit challenges and Cover pool analysis - Social considerations)

» ***Governance***: Overall exposure to meaningful governance risks is low in this programme due to: (i) covered bonds' dual recourse to both issuer and cover pool; (ii) Finnish covered bond law (iii) key programme participants' adherence to obligations; and (iv) the operational and substantive provisions of the programme documents. (See Additional analysis - Governance considerations)

Key characteristics

Exhibit 2
Covered bond characteristics

Moody's Programme Number:	504
Issuer:	OP Mortgage Bank plc
Covered Bond Type:	Residential Mortgage Loans
Issued under Covered Bonds Law:	Yes
Applicable Covered Bonds Law:	Finnish Act on Mortgage Banks and Covered Bonds 151/2022
Entity used in Moody's TPI analysis:	OP Corporate Bank plc
CR Assessment:	Aa2(cr)
CB Anchor:	CR assessment +1 notch
Senior unsecured/deposit rating:	Aa3
Total Covered Bonds Outstanding:	€1,250,000,000
Main Currency of Covered Bonds:	EUR (100%)
Extended Refinance Period:	12 months
Principal Payment Type:	Soft bullet
Interest Rate Type:	Fixed rate covered bonds (100%)
Committed Over-Collateralisation:	2%
Current Over-Collateralisation:	32.7%
Intra-group Swap Provider:	OP Corporate Bank plc
Monitoring of Cover Pool:	n/a - supervision of Finnish Financial Supervisory Authority
Trustees:	n/a
Timely Payment Indicator:	Probable-High
TPI Leeway:	5 notches

Sources: Moody's Investors Service, issuer data

Exhibit 3
Cover pool characteristics

Size of Cover Pool:	€1,659,327,726
Main Collateral Type in Cover Pool:	Residential (100%) - Residential Mortgage Loans (92.6%), Housing Company Loans (7.4%)
Main Asset Location of Ordinary Cover Assets:	Finland (100.0%)
Main Currency:	EUR (100.0%)
Loans Count:	51,322 Residential
Number of Borrowers:	77,895 Residential
WA unindexed LTV:	55.8% Residential
WA indexed LTV:	45.4% Residential
WA Seasoning (in months):	80 Residential
WA Remaining Term (in months):	162 Residential
Interest Rate Type:	Floating rate assets (99.9%), fixed rate assets (0.1%)
Collateral Score:	5.0%
Cover Pool Losses:	15.1%
Further Cover Pool Details:	See Appendix 1
Pool Cut-off Date:	11th October 2022

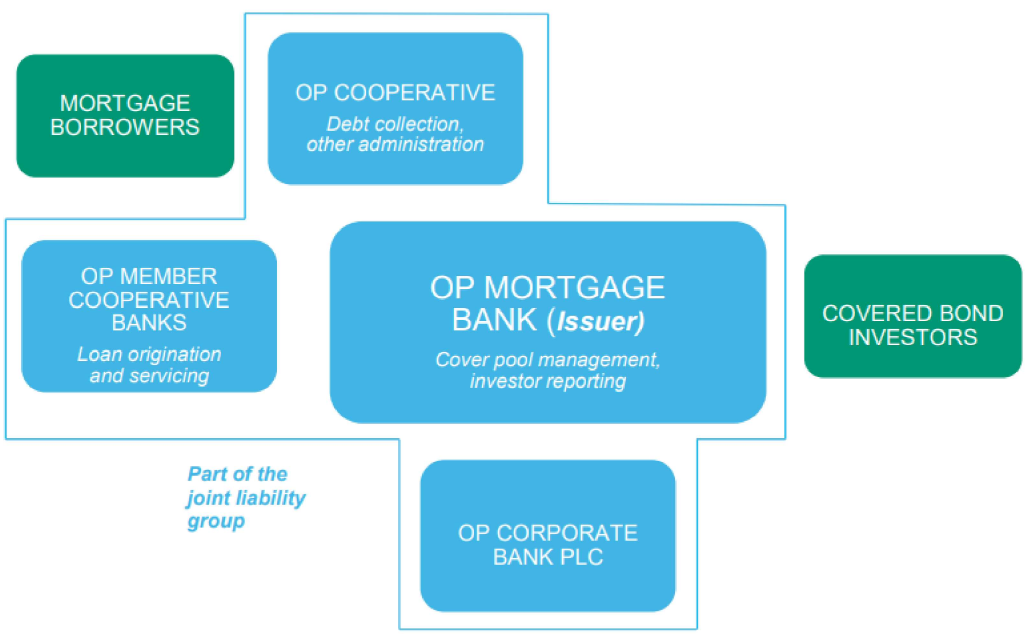
Sources: Moody's Investors Service, issuer data

Covered bond description

The covered bonds issued under the €25 billion Euro Medium Term Covered Bond (Premium) Programme of OPMB are full recourse to the issuer (see Structure description - Issuer recourse). Upon a CB anchor event, covered bondholders will have access to the cover pool.

Structural diagram

Exhibit 4



Sources: Moody's Investors Service, issuer data

Structure description

The bonds

All covered bonds have a soft bullet repayment at maturity, with a 12-month extension period for the repayment of the bonds.

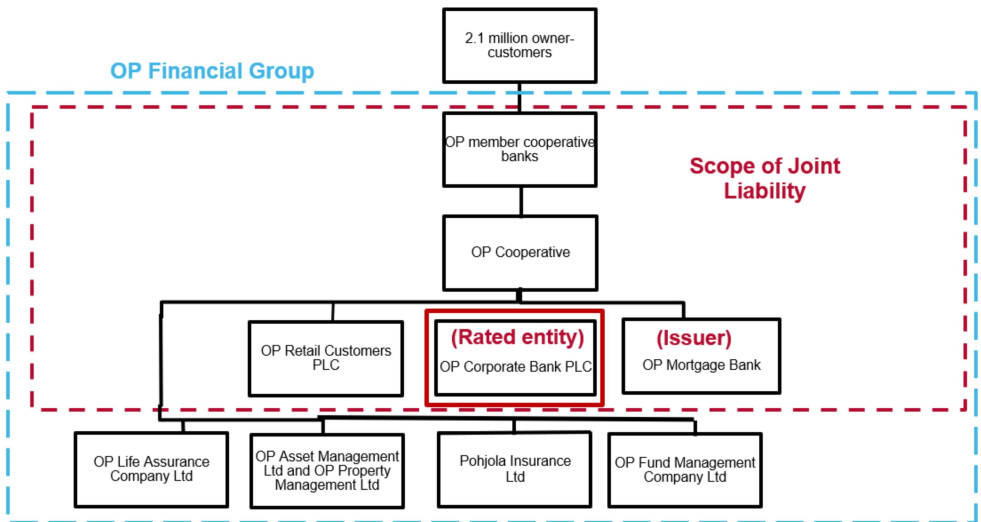
Issuer recourse

The covered bonds are full recourse to the issuer, OPMB. Therefore, the issuer is obliged to repay principal and pay interest on the covered bonds.

The issuer is part of the OP Financial Group (the Group), the largest Finnish co-operative banking group in Finland. OPMB is a wholly-owned subsidiary of the Group's central institution, OP Cooperative. It serves as a funding vehicle for the Group in respect of residential mortgage loans originated by its member banks. The most important subsidiary of the Group is OP Corporate Bank (Aa2(cr)). Under Finland's Cooperative Bank Act, all the banking subsidiaries and the member cooperative banks are jointly responsible for each other's liabilities. Creditors can claim payment from the central cooperative if any member institution is unable to pay. Each member institution has an unlimited obligation to pay the debts of the central cooperative if the latter is unable to do so independently. Therefore, our analysis links to OP Corporate Bank for the Expected Loss and TPI analysis.

Exhibit 5

Structure of OP Financial Group and the scope of the joint liability.



Sources: Moody's Investors Service, issuer data

Recourse to cover pool and over-collateralisation

If the issuer becomes insolvent, the covered bondholders would have priority claims over a pool of assets (cover pool). (See "Cover pool description" for the cover pool characteristics and "Cover pool analysis" for our analysis of the pool)

As of 11th October 2022, the level of OC in the programme was 32.7% on a nominal value basis.

The current covered bond rating relies on OC within the minimum legal requirements of the Finnish covered bond law. The law requires that the total amount of cover pool assets must continuously exceed the payment liabilities under the covered bonds by at least 2% (in each case taking account of any derivatives in the cover pool) and calculated based on the lower value between net present value and nominal value basis. Based on data as of 11th October 2022, 0.0% of OC on a nominal basis is sufficient to maintain the current covered bond rating. This shows that our analysis relies on OC that is in committed form.

Although the issuer has the ability to increase the OC in the cover pool if collateral quality deteriorates below a certain threshold, the issuer does not have any obligation to do so. The failure to increase OC following a deterioration of the collateral could lead to a negative rating action.

Legal framework

The covered bonds are governed by the Finnish Act on Mortgage Banks and Covered Bonds 151/2022 (Laki kiinnitysluottopankeista ja katetuistajoukkolainoista). There are a number of strengths in this legislation, including the regulation of the issuer by the Finnish

Financial Supervisory Authority (FSA), as well as certain minimum requirements for the covered bonds and the cover pool. (See Covered Bonds: Finland - Legal Framework for Covered Bonds)

Covered bond analysis

Our credit analysis of the covered bonds primarily focuses on the issuer's credit quality, refinancing risk, interest rate risk and currency risk, as well as the probability that payments on the covered bonds would be made in a timely fashion following a CB anchor event, which we measure using the Timely Payment Indicator (See "Timely Payment Indicator").

Primary analysis

Credit quality of the issuer

The issuer is part of the OP Financial Group (the Group), the largest Finnish co-operative banking group in Finland. OPMB is a wholly-owned subsidiary of the Group's central institution, OP Cooperative. It serves as a funding vehicle for the Group in respect of residential mortgage loans originated by its member banks. The most important subsidiary of the Group is OP Corporate Bank (Aa2(cr)). Under Finland's Cooperative Bank Act, all the banking subsidiaries and the member cooperative banks are jointly responsible for each other's liabilities. Creditors can claim payment from the central cooperative if any member institution is unable to pay. Each member institution has an unlimited obligation to pay the debts of the central cooperative if the latter is unable to do so independently. Therefore, our analysis links to OP Corporate Bank for the Expected Loss and TPI analysis. For a description of OP Financial Group's rating drivers, see our Credit Opinion, published on 25 July 2022. (See "Moody's related publications")

The reference point for the issuer's credit strength in our analysis is the CB anchor, which for covered bond programmes under the covered bond law in Finland is the CR Assessment plus one notch.

Issuer analysis - Dependency on the issuer's credit quality

The credit quality of the covered bonds depends primarily on the credit quality of the issuer. If the issuer's credit strength were to deteriorate, there would be a greater risk that a CB anchor event would occur, leading to refinancing risk for the covered bonds. Consequently, the credit quality of the covered bonds would deteriorate unless other credit risks were to decrease.

In the event that the CB anchor deteriorates, the issuer would have the ability, but not the obligation, to increase the OC in the cover pool. Failure to increase the level of OC under these circumstances could lead to a negative rating action.

Reasons for the high level of dependency of the covered bonds with the issuer include

» Refinancing risk (see below)

» Exposure to decisions made by the issuer in its discretion as manager of the covered bond programme. For example, before a CB anchor event, the issuer may add new assets to the cover pool, issue further bonds and enter new hedging arrangements. Such actions could negatively affect the value of the cover pool.

» More generally, recourse to the issuer.

As with most covered bonds in Europe, there are few contractual restrictions on the future composition of the cover pool, which creates substitution risk. Nevertheless, cover pool quality over time will be protected by, among other things, the requirements of the Finnish legal framework, which specifies what types of assets are eligible. (See "Moody's related publications: Covered Bond Legal Frameworks")

Refinancing risk

Following a CB anchor event, the "natural" amortisation of the cover pool assets alone cannot be relied on to repay principal. We assume that funds must be raised against the cover pool at a discount if covered bondholders are to receive timely principal payment. Where the portion of the cover pool that is potentially exposed to refinancing risk is not contractually limited, our expected loss analysis typically assumes that this amount is in excess of 50% of the cover pool.

After a CB anchor event, the market value of these assets may be subject to volatility. Examples of the stressed refinancing margins we use for different types of prime-quality assets are published in our Rating Methodology. (See "Moody's related publications - Moody's Approach to Rating Covered Bonds")

The refinancing-positive factors outweigh the negative ones. The refinancing-positive aspects of this covered bond programme include:

» Following issuer default, a cover pool supervisor is appointed to supervise the interests of covered bondholders. The cover pool supervisor has wide powers to direct the issuer's insolvency administrator and, in particular, will supervise cover pool cash flows and payments to covered bondholders.

» The issuer's insolvency administrator has wide powers to act in the interests of the covered bondholders under the direction of the cover pool supervisor. These include powers to enter into liquidity loans (with liquidity providers' claims subordinated to covered bondholders and derivative counterparties), and sell cover pool assets, (with the permission of cover pool administrator appointed by the FIN-FSA).

» The issuer is required to ensure that it has sufficient funds made of Supplementary collateral (as defined in the Finnish covered bond Act) to cover the total amount of net outflow due to covered bondholders during a rolling 180 days period.

» The programme benefits from contractual provisions allowing for an extension period of 12 months for the repayment of the bonds. All covered bonds issued under this programme have a soft bullet repayment at maturity.

Refinancing-negative aspects of this covered bond programme include:

» Under the covered bond law, a breach of the cover tests following issuer default, including the requirement for OC of at least 2% (in each case taking account the lower value of nominal and NPV basis), may allow the issuer's administrator to accelerate the covered bonds. This suggests that the 2% legal minimum OC may not be there to act as a buffer against losses and thereby avoid or delay acceleration after an issuer default. However, the decision to accelerate would require the approval of the cover pool supervisor, who has a clear mandate to act in the interests of covered bondholders. Accordingly, we would not expect acceleration for technical, minor or temporary breaches.

Interest rate and currency risk

As with the majority of European covered bonds, there is potential for interest rate risks, which could arise from the different payment promises and durations made on the cover pool and the covered bonds.

Exhibit 6
Overview of assets and liabilities

	WAL Assets (Years)	WAL Liabilities (Years)	Assets (%)	Liabilities (%)
Fixed rate	2.8	3.5	0.1%	100.0%
Variable rate	7.7	n/a	99.9%	0.0%

WAL = weighted average life
Sources: Moody's Investors Service, issuer data

In the event of issuer insolvency, we currently do not assume that the special cover pool administrator will always be able to efficiently manage any natural hedge between the cover pool and the covered bonds. Therefore, following a CB anchor event, our model would separately assess the impact of increasing and decreasing interest rates on the expected loss of the covered bonds, taking the path of interest rates that leads to the worst result. The interest rate and currency stresses used over different time horizons are published in our rating methodology. (See "Moody's related publications - Moody's Approach to Rating Covered Bonds")

Aspects of this covered bond programme that are market-risk positive include:

» At present there is no currency mismatch in the programme, as all the assets and liabilities are denominated in euros.

» The issuer has entered into derivatives with its parent, OP Corporate Bank PLC, which aim to mitigate interest-rate and currency mismatches.

» Interest-rate risk is also mitigated by the 180 days net outflows coverage obligation with supplementary assets and the requirement for OC of at least 2.0% defined on the lower of NPV and nominal basis.

Aspects of this covered bond programme that are market-risk negative include:

» Almost all of the cover pool assets are floating rate (99.9%), while all covered bonds are fixed rate, this results in mismatch in the interest rate profile of assets and liabilities. However, there is provision for swaps in the programme.

» The swap agreements between the issuer and its parent contain provisions designed to reduce the likelihood that the cover pool becomes unhedged following an issuer default, but the risk remains and is increased when the swap counterparty is the issuer's parent. In addition, while swaps can mitigate interest-rate risks in the cover pool, they may also reduce the effectiveness of interest rate stresses under the covered bond legal framework.

Timely Payment Indicator

Our Timely Payment Indicator (TPI) assesses the likelihood that timely payments will be made to covered bondholders following a CB anchor event, and thus determines the maximum rating a covered bond programme can achieve with its current structure while allowing for the addition of a reasonable level of OC. We have assigned a TPI of Probable-High to these covered bonds, in line with other soft bullet mortgage covered bonds issued under the legal framework.

Based on the current TPI of Probable-High, the TPI leeway for this programme is five notches. This five-notch leeway implies that we might downgrade the covered bonds' rating because of a TPI cap if we were to lower the CB anchor by more than five notches, all other variables being equal.

The TPI-positive aspects of this covered bond programme include:

» Following issuer default, a cover pool supervisor is appointed to supervise the interests of covered bondholders. The cover pool supervisor has wide powers to direct the issuer's insolvency administrator and, in particular, will supervise cover pool cash flows and payments to covered bondholders.

» The issuer's insolvency administrator has wide powers to act in the interests of the covered bondholders under the direction of the cover pool supervisor. These include powers to enter into liquidity loans (with liquidity providers' claims subordinated to covered bondholders and derivative counterparties), and sell cover pool assets, (with the permission of cover pool administrator appointed by the FIN-FSA).

» The programme benefits from contractual provisions allowing for an extension period of 12 months for the repayment of the bonds. All covered bonds issued under this programme have a soft bullet repayment at maturity.

The TPI-negative aspects of this covered bond programme include:

» Acceleration risk. The legal framework specifies several cover pool tests. Under the legal framework, asset cover requirements shall be met. If any of the tests are breached, the bankruptcy administrator must upon demand or consent of the supervisor accelerate the covered bonds, exposing the cover pool to refinancing risk. However, as mentioned before, we expect the authorities and the cover pool supervisor to take a pragmatic approach if these provisions are ever tested and avoid acceleration for technical, minor or temporary breaches.

» The programme does not benefit from any designated source of liquidity if cash flow collections are interrupted.

Additional analysis

Time subordination

After a CB anchor event, later-maturing covered bonds would be subject to time subordination. Principal cash collections may be used on a first-come, first-served basis, paying earlier-maturing covered bonds before later-maturing covered bonds. Such payments could result in the erosion of OC before any payments are made to later-paying covered bonds.

Governance considerations

Overall exposure to meaningful governance risks is low in this programme due to covered bonds' dual recourse to both issuer and cover pool and the consideration set out below.

The principal sources of governance for this programme are (i) Finnish covered bond law (Act on Mortgage Banks and Covered Bonds 151/2022) (ii) key programme participants' adherence to obligations; and (iii) the operational and substantive provisions of the programme documents. In this programme, there are control mechanisms in place that are designed to protect covered bondholders from mistakes, misallocation of cash flows and misappropriation of assets, and that promote compliance with the covered bond legal framework and operational and reporting requirements.

In particular, we note that (i) the issuer is a regulated entity and maintains the cover pool on its balance sheet, incentivising it to maximise cover pool value as owner and servicer; (ii) the cover pool supervisor, appointed post-bankruptcy of the Issuer, is a role defined by the covered bond law and owes duties to bondholders (iii) the covered bond law contains provisions addressing treatment of ineligible and non performing assets and contains detailed reporting requirements; and (iv) there is a high level of legal certainty over the segregation of the cover pool and the parties' respective rights to it.

Cover pool description

Pool description as of 11 October 2022

As of 11 October 2022, the preliminary cover pool consisted entirely of residential assets, 92.6% mortgage and 7.4% loans to housing companies loans backed by properties based in Finland.

On a nominal value basis, the preliminary cover pool assets total €1.66 billion (for OPMB's underwriting criteria, see "Appendix: Income underwriting and valuation").

As shown in Exhibit below, the properties backing the residential mortgages are located in Finland, with some geographic concentration in Uusimaa (50.5%).

The weighted average unindexed LTV of the loans is 55.8% and the weighted average indexed LTV is 45.4%, and the ineligible share of such loans (amount above the 80% LTV legal threshold) is €71 million.

Exhibits below show more details about the characteristics of the preliminary cover pool.

Residential loans

Exhibit 7

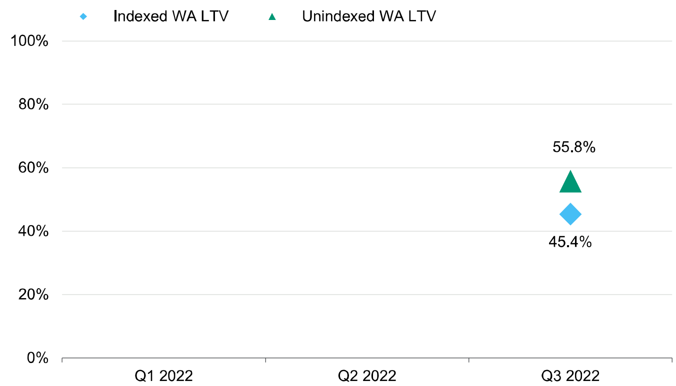
Overview		Specific Loan and Borrower characteristics	
Asset type:	Residential	Loans with an external guarantee in addition to a mortgage:	n/a
Asset balance:	1,659,327,726	Interest only Loans	0.6%
Average loan balance:	32,332	Loans for second homes / Vacation:	0.0%
Number of loans:	51,322	Buy to let loans / Non owner occupied properties:	2.5%
Number of borrowers:	77,895	Limited income verified:	n/d
Number of properties:	59,294	Adverse credit characteristics (**)	n/d
WA remaining term (in months):	162		
WA seasoning (in months):	81	**Performance**	
		Loans in arrears (≥ 2months - < 6months):	0.0%
Details on LTV		Loans in arrears (≥ 6months - < 12months):	0.0%
WA unindexed LTV (*)	55.8%	Loans in arrears (≥ 12months):	0.0%
WA Indexed LTV:	45.4%	Loans in a foreclosure procedure:	0.0%
Valuation type:	Market Value		
LTV threshold:	80%	**Multi-Family Properties**	
Junior ranks:	n/d	Loans to tenants of tenant-owned Housing Cooperatives:	n/a
Loans with Prior Ranks:	0.0%	Other type of Multi-Family loans (***)	n/a

(*) Based on property value at time of origination or further advance or borrower refinancing.
(**) Typically borrowers with a previous personal bankruptcy or borrowers with record of court claims against them at time of origination.
(***) This "other" type refers to loans directly to Housing Cooperatives and to Landlords of Multi-Family properties (not included in Buy to Let).
Sources: Moody's Investors Service, issuer data

Exhibit 8

Exhibit A

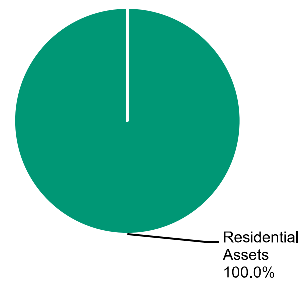
LTV



Sources: Moody's Investors Service, issuer data

Exhibit B

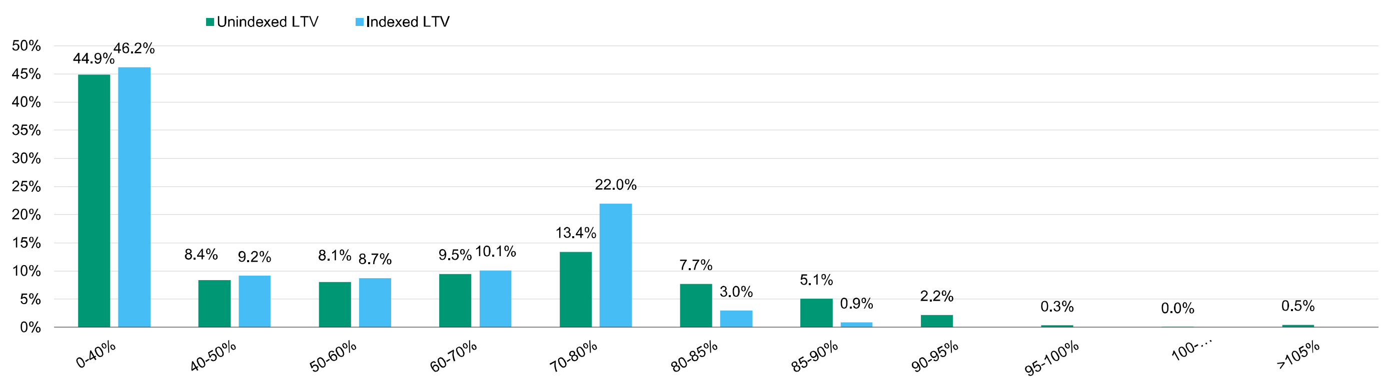
Percentage of residential assets



Sources: Moody's Investors Service, issuer data

Exhibit C

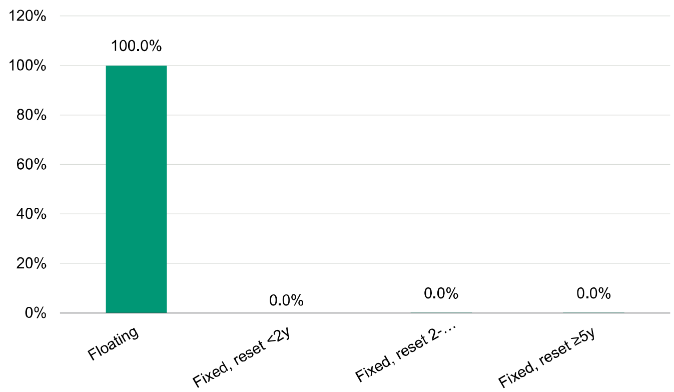
Balance per LTV band



Sources: Moody's Investors Service, issuer data

Exhibit D

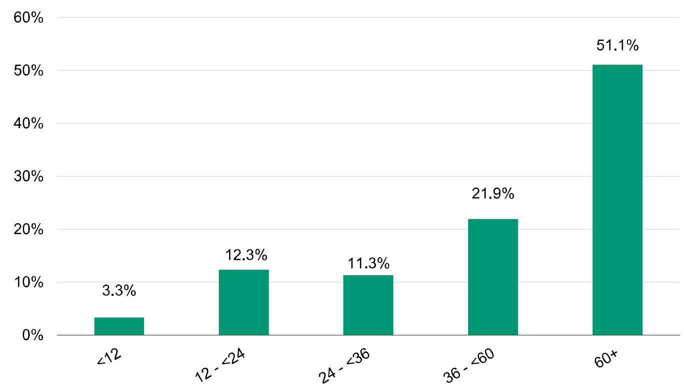
Interest rate type



Sources: Moody's Investors Service, issuer data

Exhibit E

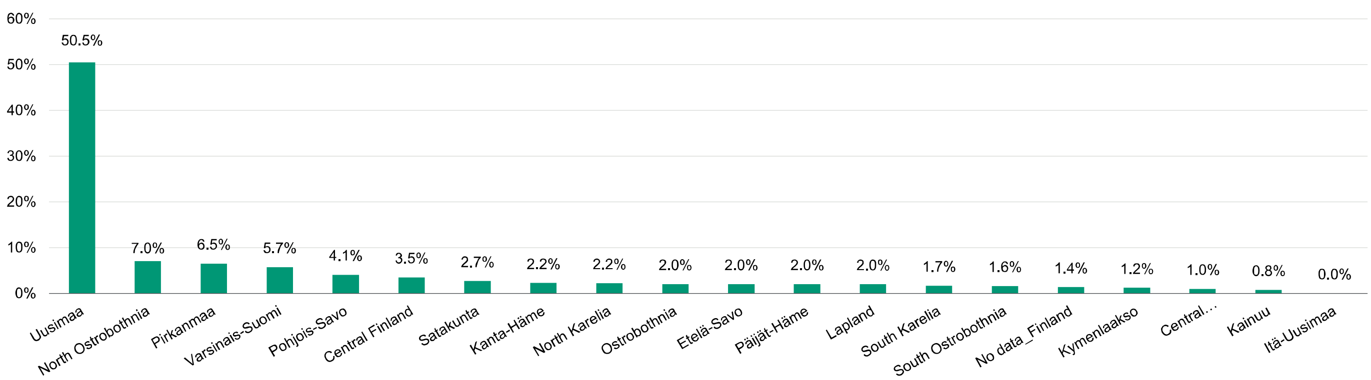
Seasoning (in months)



Sources: Moody's Investors Service, issuer data

Exhibit F

Main country regional distribution



Sources: Moody's Investors Service, issuer data

Cover pool analysis

Our credit analysis of the pool takes into account specific characteristics of the pool.

Primary cover pool analysis

We calculate the collateral score for the residential mortgages using a scoring model that estimates loss in severe recession scenario. Our analysis takes into account, among other factors, the LTV ratios of the mortgage loans, the seasoning and the geographical distribution.

For this programme, the collateral score of the current pool is 5.0%, which is inline with the average collateral score in other Finnish mortgage covered bonds (5.0%). (For details, see "Moody's related publications - Moody's Global Covered Bonds Sector Update, Q3 2022")

The cover pool may comprise (i) residential mortgage loans, including shares in housing companies; (ii) loans to housing companies; (iii) commercial mortgage loans up to 10% of the cover pool; (iv) public-sector loans to the Finnish state or a municipality or equivalent entity (or loans guaranteed by such entities); and (v) qualifying substitute assets. As of 11 October 2022, the cover pool consisted entirely of residential mortgage loans and loans to housing companies (7.4%). All of the cover assets are loans backed by properties in Finland.

No mortgage loan may be included in the cover pool if its outstanding balance exceeds the current value of the related property. For the purpose of the cover tests, the following loan-to-value thresholds (LTVs) are applied to mortgage loans: (i) residential mortgage loans: 80% of the current value of the related property; and (ii) commercial mortgage loans: 60% of the current value of the related property.

The “current value” is used in relation to residential and commercial property. The current value is determined in accordance with good real-estate-evaluation practice applicable to credit institutions in accordance with FIN-FSA capital adequacy and credit risk regulations. For the initial valuation of ordinary residential properties, a contract of sale may be sufficient. For loans over €3 million, the issuer must acquire the statement of an independent and external real estate evaluator approved by the Central Chamber of Commerce.

OP Financial Group monitors market price developments quarterly using price indexes received from Statistics Finland.

Non-performing assets may not be taken into account when calculating the total amount of cover pool assets for the purpose of the cover tests. We understand that under FIN-FSA guidelines assets should be recorded as non-performing for their entire principal amount if either interest or principal is in arrears for 90 days.

From a credit perspective, the following aspects are considered positive:

» OP Financial Group member cooperative banks originate the loans, and the bank’s staff verifies the customer’s income using a debt service capability test. Based on the test, the borrower’s net income, reduced by all expenses and assuming a total interest rate of 6% and annuity repayment of 25 years, has to exceed all debt servicing costs.

» Robust income underwriting. The income of each borrower has been verified and the income restricts the amount that can be lent.

» LTV of 45.4% on an indexed property value basis, and 55.8% on an unindexed basis, with only 3.8% of the loans with an LTV of more than 80% on an indexed basis.

» The loans have a comparatively high average seasoning of 81 months.

» All loans are performing. At the date of inclusion, the loan cannot be nonperforming, and the borrower can be neither subject to debt collection procedures nor subject to any debt reorganisation. Also, the borrower had no public payment defaults (verified in *Suomen Asiakastieto Oy’s* register)

» The issuer maintains the high credit quality of the cover pool. The issuer removes, on a daily basis, any loan exhibiting any one of the following underperformance criteria from the cover pool (pre-issuer insolvency):

  – LTV above 100%;

  – Loan debt service payments overdue by 90 days or more;

  – Impairment on the customer at IFRS Stage 3;

» Comparatively low geographical concentration, but some exposure to economically weaker areas of Finland.

» The loans are fully drawn and there are no obligations for the issuer to make further advances in any of the loans included in the pool.

» 0% of loans to employees of OP Financial Group, but this is not restricted by loan eligibility criteria.

» All loans are denominated in euros, hence there is no currency risk on borrower and property level.

From a credit perspective, the following aspects are considered negative:

» 99.9% of the residential loans in the cover pool are with floating interest rate arrangements based on Euribor rates. Hence, the borrower is exposed to rising interest rates.

» As mitigating factors, the loans are at the outset amortising with a view to fully repay the mortgage within 25 years, and the affordability test for new residential loan origination uses a 6.0% stressed interest rate.

» It is a standard feature in the Finnish lending market that the borrower may request to switch to interest-only for an extended period, with no limit to how many times such payment holidays can be requested. The lender then has the power to approve or reject this request.

For OPMB's underwriting criteria, see "Appendix - Income underwriting and valuation".

Additional cover pool analysis

Environmental considerations

Overall exposure to meaningful environmental risks is low in this programme due to the issuer's liability to make payment on the covered bonds and:

» In respect of physical risks to the cover pool, the geographical diversification of the pool, the largest concentration being 50.5% in the Uusimaa region.

» In respect of regulatory risk, we expect that over time properties that do not meet climate-aligned standards for energy efficiency or carbon emissions will face regulatory sanctions and value impairment. However, we expect much of this risk to be gradually absorbed into the periodic updating of property valuations and income underwriting or ongoing capex. This will impact key credit metrics such as LTVs.

In the event of shocks in connection with regulation or physical hazards, the impact on property collateral will be partly mitigated by borrowers' liability to repay mortgage loans regardless of property value.

Social considerations

Overall exposure to social factors is moderate for this programme. Covered bondholders benefit from the issuer's liability to make payment on the covered bonds, meaning the bondholders will not be directly exposed to social factors affecting the cover pool unless the issuer defaults. Misconduct, poor handling of data security and customer privacy breaches by lenders are the most significant social risks that may in due course affect the credit quality of the cover pool, although lenders' financial and operational flexibility and track record of adjusting to social issues may mitigate this. In addition, the diversified nature of the cover pool is a mitigant to exposure to social factors.

Social factors that potentially affect the cover pool have varied implications. Social risks can arise from changing demographic trends such as aging, urbanization, an increase in telecommuting and flight from cities, population declines or ways of living trends in general that impact the supply or demand for housing in particular areas, which can reduce home values. Societal and demographic trends will be relevant but typically develop over an extended timeframe that smooths out materiality for expected loss.

Social issues may also be driven also by a political agenda related to housing and consumer protection, particularly in down cycles, creating pressure on recovery values. Borrower-friendly legislation as a reaction to consumer activism can affect both the underwriting and the servicing of mortgage loans in the cover pool.

Comparables

Exhibit 9

Comparables - OP Mortgage Bank - Mortgage Covered Bonds 4 and other Finnish deals

PROGRAMME NAME	OP Mortgage Bank - Mortgage Covered Bonds 4	OP Mortgage Bank - Mortgage Covered Bonds 3	Aktia Bank p.l.c. - Mortgage Covered Bonds	OP Mortgage Bank - Mortgage Covered Bonds 2	Danske Mortgage Bank Plc - Mortgage Covered Bonds (Danske Bank Plc - Mortgage Covered Bonds)	Nordea Mortgage Bank Plc - Mortgage Covered Bonds
Overview						
Programme is under the law	Finland	Finland		Finland		Finland
Main country in which collateral is based	Finland	Finland	Finland	Finland	Finland	Finland
Country in which issuer is based	Finland	Finland	Finland	Finland	Finland	Finland
Total outstanding liabilities	1,500,000,000	3,000,000,000	2,100,000,000	13,415,000,000	2,250,000,000	20,683,500,000
Total assets in the Cover Pool	1,659,327,726	3,584,539,746	2,577,357,784	15,685,784,165	3,550,757,409	24,029,401,887
Issuer name	OP Mortgage Bank	OP Mortgage Bank	Aktia Bank plc	OP Mortgage Bank	Danske Mortgage Bank plc	Nordea Mortgage Bank plc
Issuer CR assessment	Unpublished	Unpublished	A1(cr)	Unpublished	Unpublished	n/a
Group or parent name	OP Financial Group	OP Financial Group	n/a	OP Financial Group	Danske Bank A/S	Nordea Bank Abp
Group or parent CR assessment	n/a	n/a	n/a	n/a	A1(cr)	Aa2(cr)
Main collateral type	Residential	Residential	Residential	Residential	Residential	Residential
Collateral types	Residential 100%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 0%	Residential 100%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 0%	Residential 100%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 0%	Residential 100%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 0%	Residential 100%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 0%	Residential 100%, Commercial 0%, Public Sector 0%, Other/Supplementary assets 0%
Ratings						
Covered bonds rating	Aaa	Aaa	Aaa	Aaa	Aaa	Aaa
Entity used in Moody's EL & TPI analysis	OP Corporate Bank plc	OP Corporate Bank plc	Aktia Bank PLC	OP Corporate Bank plc	Danske Mortgage Bank Plc	Nordea Bank Abp
CB anchor	CR Assessment + 1 notch	CR Assessment + 1 notch	CR Assessment + 1 notch	CR Assessment + 1 notch	CR Assessment + 1 notch	CR Assessment + 1 notch
CR Assessment	Aa2(cr)	Aa2(cr)	A1(cr)	Aa2(cr)	Unpublished	Aa2(cr)
SUR / LT Deposit	Aa3	Aa3	A2	Aa3	n/a	Aa3
Unsecured claim used for Moody's EL analysis	Yes	Yes	Yes	Yes	Yes	No
Value of Cover Pool						
Collateral Score	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Collateral Score excl. systemic risk	3.5%	2.6%	3.6%	2.1%	2.2%	2.6%
Collateral Risk (Collateral Score post-haircut)	3.4%	3.4%	3.4%	3.4%	3.3%	3.4%
Market Risk	11.2%	7.6%	9.9%	6.1%	6.0%	7.9%
Over-Collateralisation Levels						
Committed OC*	2.0%	2.0%	10.0%	2.0%	0.0%	2.0%
Current OC	10.6%	19.5%	22.7%	16.9%	57.8%	16.2%
OC consistent with current rating	0.0%	0.0%	1.5%	0.0%	3.5%	0.0%
Surplus OC	10.6%	19.5%	21.2%	16.9%	54.3%	16.2%
Timely Payment Indicator & TPI Leeway						
TPI	Probable-High	Probable-High	Probable-High	Probable-High	Probable-High	Probable
TPI Leeway	5	5	3	5	2	5
Reporting date	11 October 2022	31 March 2022	30 June 2022	31 March 2022	30 June 2022	30 June 2022

*We consider this level of OC as committed according to our methodology even though the level of OC provided via the asset cover test might be higher because the issuer could reduce the level of OC down to this level without a rating impact on our covered bond rating

Sources: Moody's Investors Service, issuer data

Methodology and monitoring

The primary methodology we use in rating the issuer's covered bonds is "Moody's Approach to Rating Covered Bonds", published in December 2021. Other methodologies and factors that may have been considered in the rating process can also be found on https://ratings.moodys.com. In addition, we publish a weekly summary of structured finance credit, ratings and methodologies, available to all registered users of our website, at //www.moodys.com/SFQuickCheck.

We expect the issuer to deliver certain performance data to us on an ongoing basis. In the event that this data is not made available to us, our ability to monitor the ratings may be impaired. This lack of data availability could negatively affect the ratings or, in some cases, our ability to continue to rate the covered bonds.

Income underwriting and valuation

Exhibit 10

A. Residential Income Underwriting	
1. Is income always checked?	Yes.
2. Does this check ever rely on income stated by borrower ("limited income verification") ?	No.
3. Percentage of loans in Cover Pool that have limited income verification	None.
4. If limited income verification loans are in the Cover Pool, describe what requirements lender has in place for these loans.	Not applicable.
5. Does income in all cases constrain the amount lent (for example through some form of Income Sufficiency Test ("IST")?	Yes.
6. If not, what percentage of cases are exceptions.	No exceptions.
For the purpose of any IST:	
7. Is it confirmed that income after tax is sufficient to cover both interest and principal?	Yes.
8. If so over what period is it assumed principal will be paid (typically on an annuity basis)? Any exceptions?	Payment of interest and principal typically on a monthly basis. Maximum payment period for loan is limited to 30 years.
9. Does the age of the borrower constrain the period over which principal can be amortised?	Yes.
10. Are any stresses made to interest rates when carrying out the IST? If so when and for what type of products?	Yes, all products. For IST purposes borrower's capacity to pay is tested using an interest rate of 6%.
11. Are all other debts of the borrower taken into account at the point the loan is made?	Yes.
12. How are living expenses of the borrower calculated? And what is the stated maximum percentage of income (or income multiple if relevant) that will be relied on to cover debt payments. (specify if income is pre or post tax)	Expenses are based on standard indices prepared by the OP Financial Group and are based on public statistics on expanses and estimates that are used by officials. These are not published. The percentage of post tax income that is assumed to be available for debt repayment varies between 15-40%.
Other comments	

B. Residential Valuation	
1. Are valuations based on market or lending values?	Market values.
2. Are all or the majority of valuations carried out by external valuers (with no direct ownership link to any company in the Sponsor Bank group)?	No.
3. How are valuations carried out where an external valuer not used?	Valuation is based on sales contract or internal valuation that is supported by available market data.
4. What qualifications are external valuers required to have?	Experience/Licensed real estate agent.
5. What qualifications are internal valuers required to have?	Experience.
6. Do all external valuations include an internal inspection of a property?	Yes.
7. What exceptions?	None.
8. Do all internal valuations include an internal inspection of a property?	No.
9. What exceptions?	None.
Other comments	

Source: Issuer

Moody's related publications

Rating Methodology

» Moody's Approach to Rating Covered Bonds, December 2021 (1307630)

Special Comments

» Covered bonds - Global: 2022 Outlook, Stable issuers, strong assets and new rules will support credit quality, December 2021 (1304199)

» Covered Bonds – Global - Sector Update - Q3 2022: Rapid inflationdriven rate hikes will be double-edged sword for banks, September 2022 (1337343)

» Finland - Legal framework for covered bonds, July 2019

Credit Opinion

» OP Corporate Bank plc

Webpages

» Covered Bonds: www.moodys.com/coveredbonds

» Covered Bond Legal Frameworks: www.moodys.com/Pages/CoveredBondLegalFrameworks.aspx

To access any of these reports or webpages, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

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